ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

RURAL SANITARY DISTRICT

OF

ST. FAITH'S UNION

FOR THE YEAR

1893.

NORWICH: PRINTED BY FLETCHER AND SON.

Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

https://archive.org/details/b30126332

ST. FAITH'S SUB-DISTRICT.

Alderford
Attlebridge
Booton
Brandeston
Felthorpe
Haveringland
Honingham
Horsford
Horsham St. Faith's
Morton
Newton St. Faith's
Ringland
Swanington
Taverham
Weston
Witchingham

SPROWSTON SUB-DISTRICT.

Beeston
Catton
Crostwick
Drayton
Frettenham
Haynford
Hellesdon
Horstead
Rackheath
Salhouse
Spixworth
Sprowston
Wroxham

ANNUAL REPORT.

BIRTHS.

THE total number of births registered last year was 344, including 177 male and 167 female children. The general birth-rate for the whole district was therefore about 28 per 1000 inhabitants, which it will be seen in the subjoined table was below the average birth-rate of the preceding ten years. In virtue probably of its greater density of population, the suburban parish of Sprowston exhibited as usual a higher birth-rate than the other parts of the district.

BIRTH-RATE PER 1000 INHABITANTS.

	1893.	1883-92.
Sprowston Sub-District ...	30 ...	33
St. Faith's Sub-District ...	26 ...	30
Whole District	28 ...	31
Sprowston Parish	35 ...	38

DEATHS.

The annual mortality in the district was happily below the average in spite of the unusual prevalence of epidemic disease, and an exceptional number of deaths from this cause. The total number of deaths was only 172,* comprising 88 males and 84 females, giving an annual death-rate of about 14 per 1000 inhabitants, which is the lowest recorded during the 15 years I have held office in this union. Medical certificates of the cause

*The deaths occurring in the Norwich City Asylum at Hellesdon are notincluded in this figure.

of death were wanting in only six instances. Two persons succumbed to accidental injuries, whilst coroner's inquests were held in six cases of sudden death.

LOCAL DEATH-RATE PER 1000 INHABITANTS.

	1893.	1883-92.
St. Faith's Sub-District	13	14
Sprowston Sub-District	14	16
Workhouse	87	
Whole District	14	16
Sprowston Parish	17	18

The habitually higher death-rate in Sprowston may be attributed, in part at least, to the habitually higher birth-rate there entailing a greater infant mortality.

DEATH-RATE AT DIFFERENT SEASONS.

	1893.	1883-92.
First Quarter	17	17
Second Quarter	13	17
Third Quarter	12	13
Fourth Quarter	15	16

It will be remembered that the weather was remarkably dry and warm during the spring and summer months, a circumstance which may perhaps account for the diminished number of deaths during this period of the year.

AVERAGE DURATION OF LIFE.

	1893.	1883-92.
Workhouse	77	68
Sprowston Sub-District	39	36
St. Faith's Sub-District	28	42
Whole District	37	40
Sprowston Parish	23	32
Norwich Asylum	55	53

The mean age of the deceased is generally much higher in the St. Faith's than it is in the Sprowston Sub-District, where the parish of Sprowston tends materially to reduce the average of the district in which it is situated. Last year, however, the reverse obtained, the mean age in the St. Faith's Sub-District being considerably below that of the Sprowston Sub-District. The very low average in the parish of Sprowston was due to two causes, viz., first, a rather high infant mortality, and, secondly, to the fact that comparatively few people died there over 65 years of age last year.

Mortality at Different Ages.

The rate of mortality at different ages throughout the entire district was as follows :—

Under 1 year	...	3·4	per 1000 inhabitants.
1 to 5 years	...	1·9	,, ,,
5 to 15 years	...	0·7	,, ,,
15 to 25 years	...	0·9	,, ,,
25 to 65 years	...	3·0	,, ,,
65 and upwards	...	4·4	,, ,,
		14·3	

More than one-third of the deceased were under five years of age, whilst rather less than one-third were 65 years old and upwards.

Examining each sub-district separately, we get the following results :—

Sub-Districts.	Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 65 years.	65 and upwds.
St. Faith's ...	3·2	2·8	0·8	0·8	2·6	3·0
Sprowston ...	3·6	1·3	0·5	1·0	3·2	4·8
Sprowston Parish	6·2	2·7	1·3	1·3	2·7	2·7

The above table throws some light on the causes of the low mean age in the parish of Sprowston last year.

DEATHS UNDER ONE YEAR TO 1000 BIRTHS.

	1893.	1883-92.
Sprowston Sub-District ...	116	127
St. Faith's Sub-District ...	124	112
Whole District	119	123
Sprowston Parish	179	151

It is certainly a remarkable circumstance, that the infantile death-rate was below the average, notwithstanding the fact that the zymotic mortality of the year was exceptionally heavy.

ZYMOTIC SICKNESS AND MORTALITY.

There was a marked increase in the number of notifications and of zymotic deaths last year. Thus in 1892 there were only 24 notifications, whereas in 1893 there were as many as 70, including nine cases of typhoid fever, which disease had been entirely absent in the previous year. Again the number of deaths from the eight principal zymotic diseases, which was only five in 1892, rose to 23 in 1893. As regards the cause or causes of this increased prevalence of epidemic disease, it is difficult to resist the conclusion that the city of Norwich is the chief centre from which diseases of this class radiate to all parts of the county. All kinds of infectious diseases are almost always existent there, and every day in the week a considerable number of country people are exposed to infection in the capital town.

ZYMOTIC DISEASES.	SICKNESSES.	DEATHS.
Scarlatina	31	3
Diphtheria	26	4
Typhoid Fever ...	9	—
Erysipelas	4	—
Measles	—	9
Whooping Cough ...	—	5
Diarrhœa	—	2
Total ...	70	23

LOCAL ZYMOTIC DEATH-RATE.

	1893.	1883-92.
Sprowston Sub-District	1·7	1·0
St. Faith's Sub-District	2·2	0·7
Whole District	1·9	0·9
Sprowston Parish	4·0	1·3

The figures in this table are all unusually high for this district. Whatever the cause of the increased prevalence of zymotic disease may have been, it seems to have been in general operation all over the county and kingdom, so that atmospheric influences must be looked upon as the principal factor in bringing about this apparently universal result. I shall now make a few remarks on each individual disease.

SCARLATINA. The 31 cases of this fever occurred in eleven different parishes, and the fact that no less than 23 of them were reported in parishes contiguous to Norwich, and only seven in the more distant sub-district of St. Faith's, leaves little room for doubt respecting the origin of these cases. It seems to me a sheer waste of time and nothing short of quackery to advocate the abolition of innocent manure heaps, and the use of harmless disinfectants, as the chief means of controlling epidemics of scarlatina which owe their origin to personal infection and to nothing else. It was found necessary to close the schools at Catton, Hellesdon, and Horsham St. Faith's, on account of this fever. I personally visited the scenes of the more important outbreaks at Hellesdon, Catton, Crostwick, Horsham St. Faith's, Taverham, Drayton, and Sprowston, giving such directions as were needed to prevent the disease spreading.

DIPHTHERIA. Most of the cases of this disease occurred in the parishes of Frettenham and Great Witchingham. The situation of the houses affected in both these parishes was somewhat damp. In one or two instances I found insanitary defects which I reported to the authority, and which were subsequently remedied where it was found practicable to do so. A few cases occurred also at Attlebridge towards the end of the year, necessitating the closure of the school there. Here also I found a certain dampness of situation without any special insanitary defects.

TYPHOID FEVER. As many as nine cases of this disease occurred during the course of the year, all of which terminated in recovery.

In the month of January a young man was affected with typhoid at Wroxham, soon after his return from a visit to Norwich. The drinking water contained rather more albuminoid ammonia than is usually met with in good water (see analysis No. 11), but the situation of the well precluded the possibility of excremental pollution. The other members of the family, four in number, escaped infection.

Towards the end of February the wife of the schoolmaster at Wroxham was also affected with typhoid. A large bin receiving the excreta from the school closets was only about 21 feet from the pump. On examining the water, however, I found it very pure (see analysis No. 3), but deemed it advisable to recommend the removal of the bin to a greater distance from the well in order to obviate the possibility of pollution hereafter. There was also an unventilated drain in this case.

Towards the end of May a third case occurred at Wroxham, the particulars of which I was unable to investigate, although I was told at the time that the water had been analysed by Mr. Sutton, the County Analyst, and found pure. There was no connection between this case and either of the two preceding ones.

In the month of June a young man was taken ill with typhoid at Salhouse. He and his father were wherrymen, and were therefore often absent from home for several days at a time. The illness came on in the course of one of these voyages. This proved to be one of those, in my experience, not very uncommon cases in which the drinking-water is found to be chemically pure in spite of the well being in close proximity to a closet bin (see analysis No. 8). The rather large amount of nitrogen was, however, rather suggestive of past contamination, and therefore I directed a new bin to be constructed at a greater distance from the well. The other members of the family, seven in number, escaped infection.

Towards the end of July a little girl, living in a house on the top of a hill at Sprowston close to Mousehold Heath, was taken ill with typhoid. This seems to have been rather a doubtful case. The well, 120 feet deep, yielded a very pure water, though only 27 feet from a dead well receiving the waste water from the scullery sink (see analysis No. 4). The waste water pipe was not disconnected in this case. The six remaining members of the family were unaffected.

Towards the end of August my attention was called to a case of typhoid at Horsford. The patient, a young woman, had been taken ill when in service at Norwich, and was sent home in consequence. The drinking-water was found pure (see analysis No. 5). The other members of the family, three in number, escaped infection.

In the month of September a little girl was taken ill with typhoid fever at Catton. In my somewhat extensive experience as a water analyst I have never met with a more remarkable case than this. The pump made use of by this and several other families was in the centre of a small yard, surrounded by privies, dead wells, and drains, whilst the yard itself was occasionally flooded in wet weather. In the year 1888, diphtheria having broken out in this yard, I analysed a sample of the water yielded by this pump, and was astonished to find it of excellent quality, which indeed is more or less the case with all the wells in Catton and Sprowston, let their situation be what it may. I condemned the existing arrangements at the time, but could not suggest a remedy, there being insufficient space to erect the closets elsewhere. A second analysis made last year gave precisely the same results as the first analysis (see analysis No. 1). So far as the drinking water is concerned, the present evil could easily be remedied by laying on the Norwich service water, the mains of which are not far off. The six remaining members of the family escaped infection.

Towards the end of October a second case of typhoid occurred at Catton. The drinking water here also was above suspicion (see analysis No. 2), but the scullery sink waste water pipe was not disconnected from the drain, whilst the dead well was unventilated. These defects were subsequently remedied. No other persons in the family were affected.

In the month of December I visited a case of fever in a farmhouse at Weston. Although the situation of the well precluded the possibility of excremental pollution, the water contained an excess of albuminoid ammonia, and had a strong smell of sulphuretted hydrogen, when first pumped up (see analysis No. 10). The other members of the family, nine in number, escaped infection.

During the past 15 years I have analysed the drinking-water in 98 cases of typhoid fever in this union, including 39 different foci. In 86 of these cases the water was certainly free from pollution. As regards the remaining 12 cases in which chemical analysis gave doubtful results, in eight of them the well was 60 feet or more from the nearest source of pollution; in one of them the disease was undoubtedly due to importation, whilst in two cases the fact that of numerous families drinking the suspected water, only a solitary member of one of them was affected, is incompatible with the view that the drinking-water had anything to do with the outbreak. In another union with which I have been officially connected for several years past, and in which I have investigated a still larger number of typhoid cases than in St. Faith's Union, my water analyses tell precisely the same tale. On the whole, with such figures staring me in the face, I cannot help thinking that we have still a good deal to learn respecting the etiology of this fever.

Sanitary Improvements.

No important sanitary undertakings were carried out during the year, the essentially rural character of the district rendering costly drainage schemes both impracticable and unnecessary. The unusual number of infectious cases in this and another rural sanitary district, severely taxed the energies of your late medical officer of health, entailing endless running to and fro and that general sense of dissatisfaction which arises when a man feels that nothing but ubiquity will enable him to fulfil all his obligations to his fellow-creatures.

Mr. Thomas Fox, the Sanitary Inspector, performed his various duties in the same satisfactory manner as in previous years, rendering the union very essential service in the abatement of nuisances, and in other matters connected with his office. He informs me the following nuisances were dealt with during the past year :—

Bins and closets repaired	90
Bins emptied	170
Insufficient closet accommodation	20
Defective drainage	89
Manure heaps removed	60
Nuisances from pigs	6
Defective water supply	30
New closets	4
Insufficient bedroom accommodation	10
	479

SHEPHARD T. TAYLOR.

Theatre Street, Norwich, March, 1894.

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR OLD.

Aphthæ	2	Phthisis	1
Bronchitis	3	Premature Birth ...	11
Convulsions	1	Scarlet Fever ... —	1
Debility	10	Tubercular Meningitis	1
Laryngitis	1	Whooping Cough ...	3
Marasmus	4		
Measles	2		41
Natural Causes ...	1		

SUB-DISTRICTS.	Estimated Population	Birth-Rate	Death-Rate	Average Age.	Under 1 yr.	Zymotic Death-Rate	Phthisis.
St. Faith's	4995	26	13	28	124*	2·2	1·0
Sprowston	6954	30	14	39	116	1·7	0·7
Workhouse	69		87	77		NIL.	NIL.
Whole District ...	12018	28	14	37	119	1·9	0·8
INDIVIDUAL PARISHES.							
Sprowston	2242	35	17	23	179	4·0	1·3
Norwich Asylum ...	299		104	55		NIL.	6·6

*The Figures in this Column represent the Ratio of Infantile Deaths to 1000 Births.

No.	Locality.	Grains per Gallon.					Degrees.		Remarks.
		Free Ammonia.	*Albuminoid Ammonia.	Oxygen Consumed.	Chlorine.	Nitrogen as Nitrates and Nitrites.	Total Hardness.	Permanent Hardness.	
1	Day's Pump, Catton	NIL.	NIL.	·0373	4	4·90	38	16	Pure. Typhoid
2	Martin's Pump, Catton	NIL.	NIL.	·0373	3	3·50	34	14	Pure. Typhoid
3	School Pump, Wroxham ...	NIL.	·0014	·0231	2½	2·10	19	9	Pure. Typhoid
4	Hill Farm Well, Sprowston ...	NIL.	·0014	·0259	3½	1·40	26	10	Pure. Typhoid
5	Horsford House Stable Pump ...	·0021	·0028	·0497	6	3·50		18	Pure. Typhoid
6	Dog Inn Pump, Horsford ...	NIL.	·0035	·0329	3½	2·10	17	14	Pure. Typhoid here formerly
7	Watts' Pump, Frettenham ...	·0014	·0042	·0329	6	2·10	49	26	Pure. Typhoid here formerly
8	Grimes' Well, Salhouse	·0028	·0056	·0462	14½	9·10	34	22	Doubtful. Typhoid. Chlorides generally in excess at Salhouse
9	Mill Yard Pump, Hoveton ...	·0700	·0056		5	1·55	28	11	Doubtful. Typhoid here formerly
10	Mr. Milk's Pump, Weston ...	·0070	·0098	·2849	3½	NIL.	36	10	Indifferent. Typhoid. Remote
11	Malthouse Pump, Wroxham ...	·0056	·0140	·0576	2½	1·05	36	12	Impure. Remote. Typhoid

* The Albuminoid Ammonia is taken as the Measure of Impurity.

EDITOR
12 APR 94
BRITISH MEDICAL JOURNAL